الجامعة العربية المفتوحة
Arab Open University

TM291
Management Information System

MEETING 1 – INTRODUCTION TO INFORMATION SYSTEMS AOU UNIVERSITY

Course Assessment :

- MTA 30%
- TMA 15%
- Participation 5%
- Final Exam 50%

What is Data?

Raw Material

Numbers and strings of letters with no precise context or meaning

What is Information?

Data processed with knowledge

“Data endowed with relevance and purpose”

“Data becomes information when its creator adds meaning”

“An organized, meaningful, and useful interpretation of data”

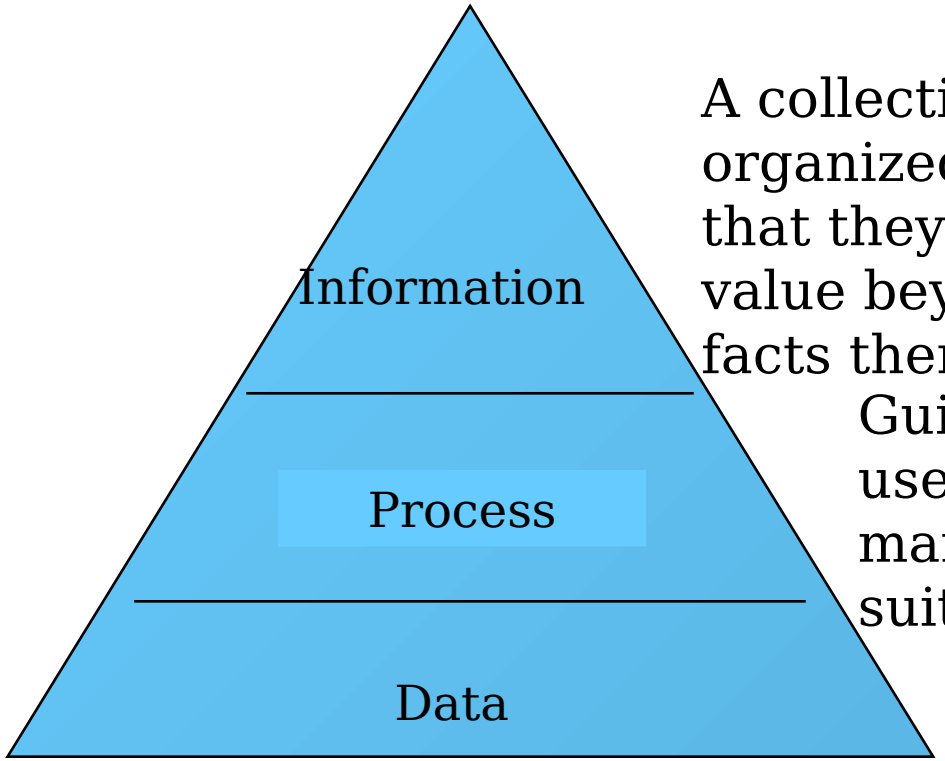
What is Knowledge?

"A body of guidelines and rules used to select, organize, and manipulate data to make it suitable for a given task"

"An awareness and understanding of a set of information and how that information can be put to its best use"

"Internalized information + the ability to utilize this information"

Data transformed into Information



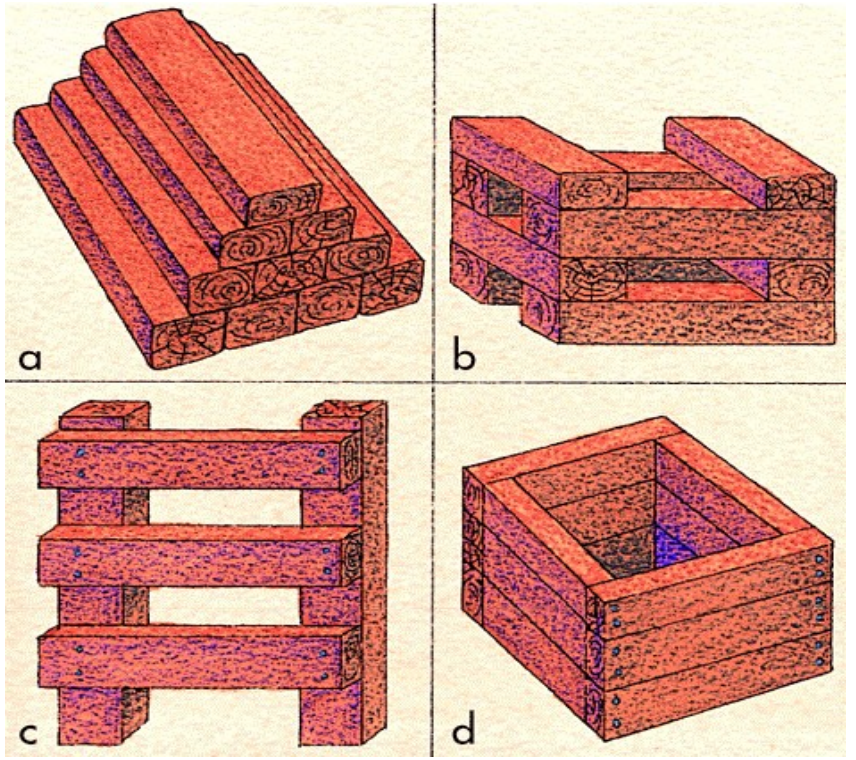
A collection of facts organized in such a way that they have additional value beyond the value of facts themselves.

Guidelines and procedures used to select, organize, and manipulate data to make it suitable for a specific task.

Raw facts

Data becomes Information

- Establishing relationships between data creates information.



Characteristics of Valuable Information

- Relevant
- Complete
- Accurate
- Current/Timely
- Economical
- Accessible

Determining the Value of Information

Measurements

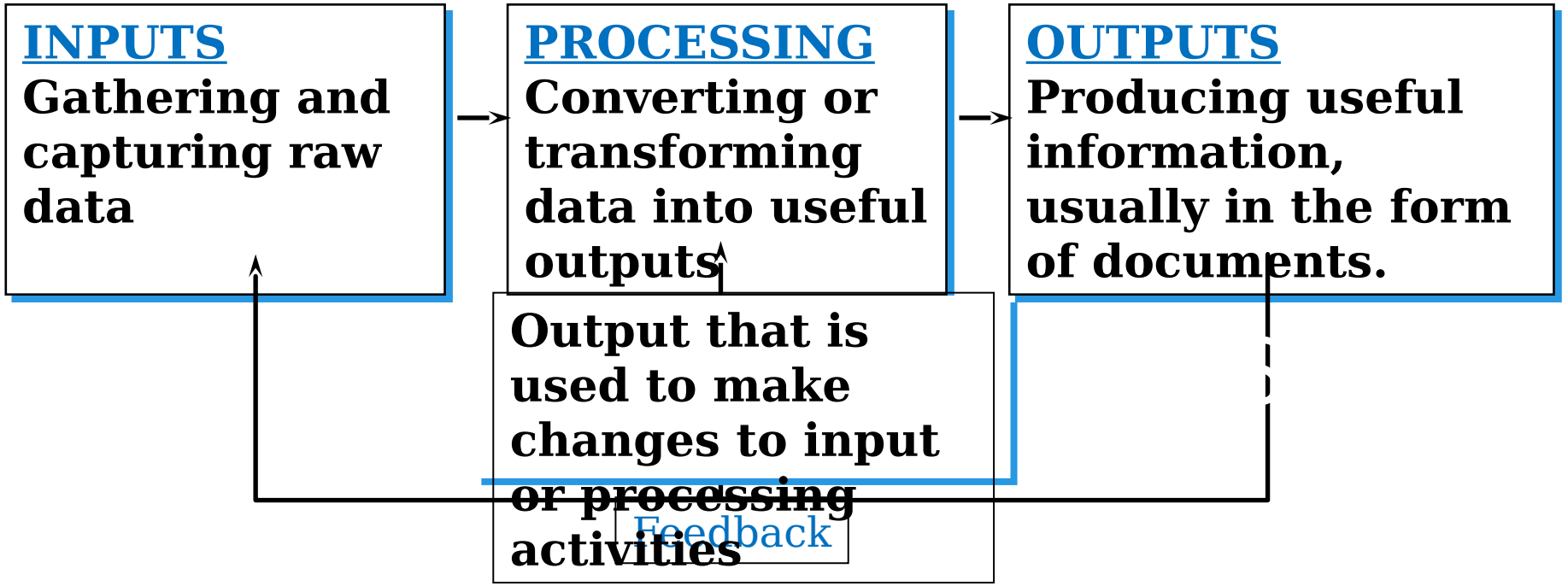
- Time saved, lower costs
- More accurate forecasts
- Improved service

What is a System?

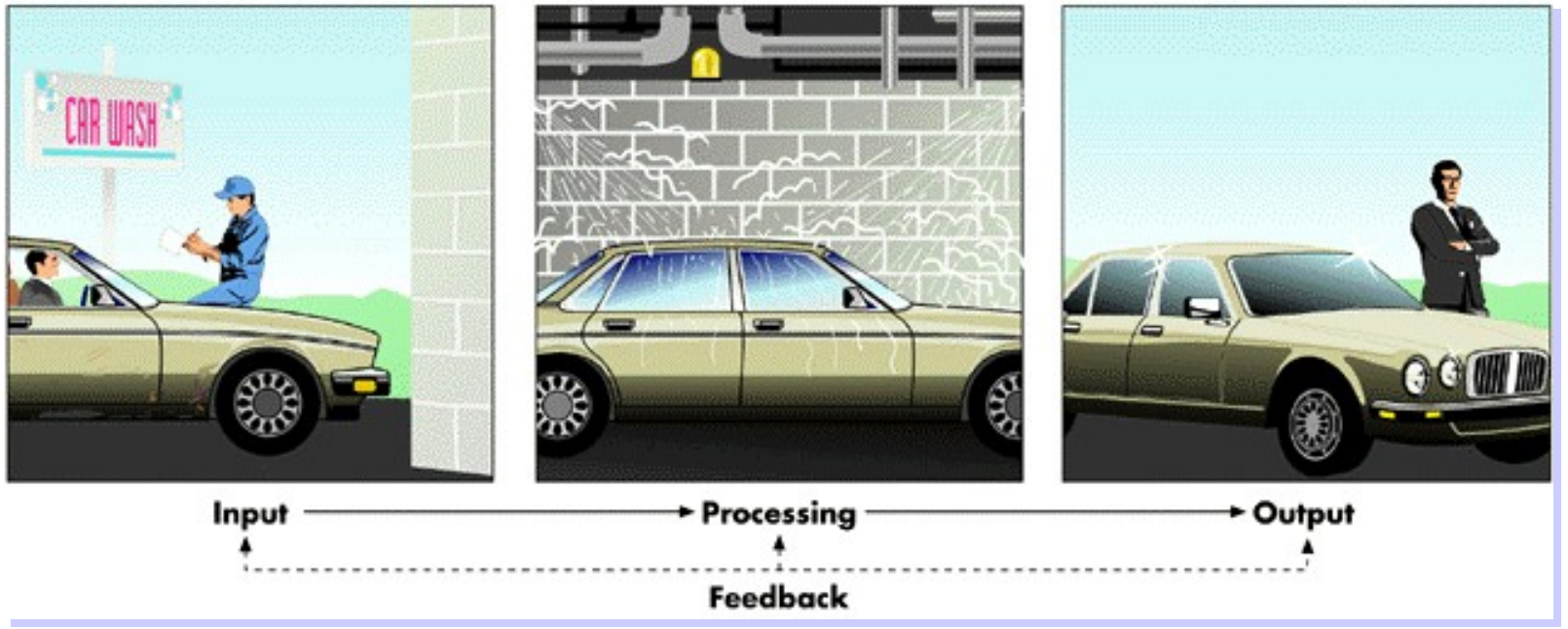
Components that work together to achieve a goal by accepting input, processing it, and producing output in an organized manner.

- e.g. a sound system

Components of a System


INPUTS
Gathering and capturing raw data
PROCESSING
Converting or transforming data into useful outputs
OUTPUTS
Producing useful information, usually in the form of documents.
Output that is used to make changes to input or processing activities
Feedback

Components of a System



Open vs. Closed Systems

Closed System

- Stands alone
- No connection to other systems

Open System

- Interfaces and interacts with other systems
- Gets information from and provides information to other systems

System Performance

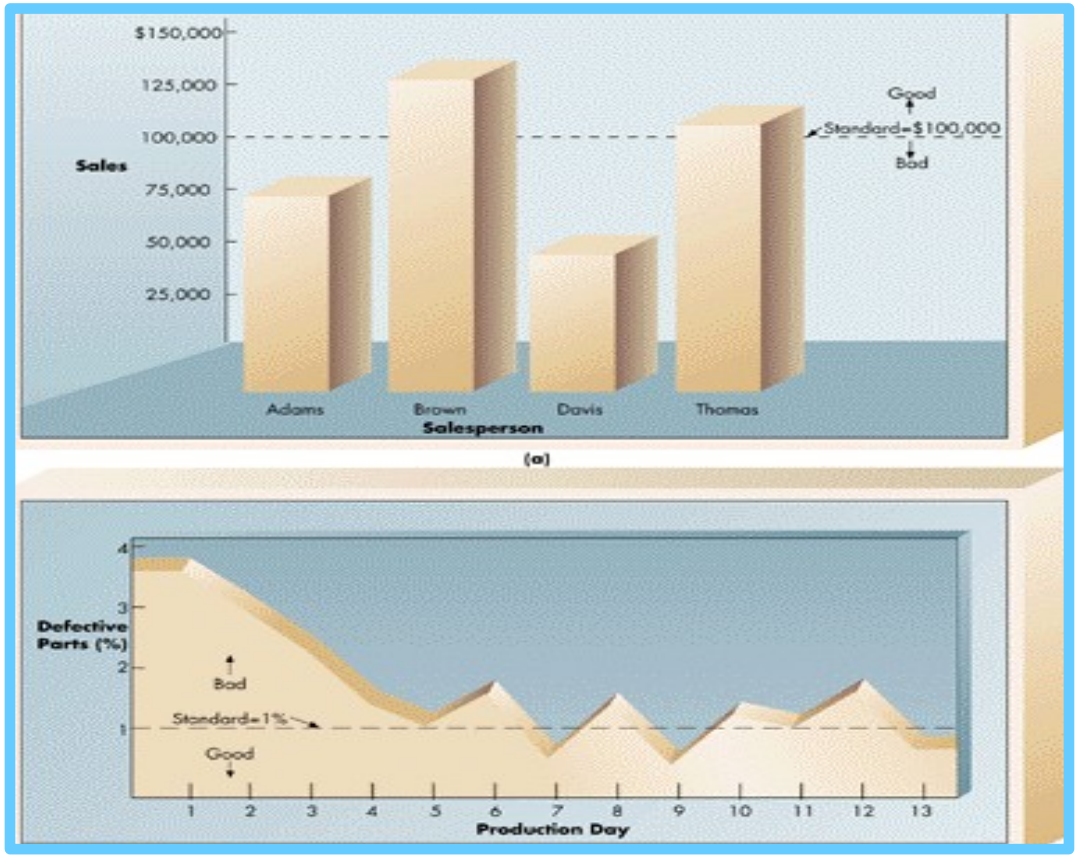
Efficiency

- A measure of what is produced divided by what is consumed.

Effectiveness

- A measure of what is achieved divided by the stated goal.

System Performance Standards



System Variables and Parameters

System Variable

- A quantity or item that can be controlled by the decision maker (controllable).
  - e.g. selling price

System Parameter

- A value or quantity that cannot be controlled by the decision maker.
  - e.g. raw material costs

So, What is an Information System?

Information: An organized, meaningful, and useful interpretation of data

System: Components that work together to achieve a goal by accepting input, processing it, and producing output in an organized manner

Information System: Components that work together to process data and produce information (to help companies solve problems and make decisions).

Information Systems

Information System (IS). Collects, processes, stores, analyzes and disseminates information for a specific purpose.

Computer-based Information System (CBIS). An information system that uses computer technology to perform some or all of its intended tasks.

Managing Information Resources

The major categories of information resources are hardware, software, databases, networks, procedures, security facilities and physical buildings.

Managing Information Resources (Continued)

The Role of the IS Department

- The ISD is responsible for corporate-level and shared resources and for using IT to solve end users' business problems.
- End users are responsible for their own computing resources and departmental resources.
- ISD and end users work together as partners to manage the IT resources.

Systems Development

Systems Development

- The activity of creating or modifying existing business systems.

Objectives

- Make the process manageable
- Achieve predictable costs and timing

Systems Development Steps

1) Systems Investigation
   - Gain a clear understanding of the problem to be solved or opportunity to be addressed.
2) Systems Analysis
   - Define the problems and opportunities of the existing system.
3) Systems Design
   - Determine how the new system will work to meet the business needs defined during systems analysis.

Systems Development Steps

4) Systems Implementation
   - Create or acquire the various system components defined in the design step, assemble them, and put the new system into operation.
5) System Maintenance and Review
   - Check and modify the system so that it continues to meet changing business needs.

System Development Life Cycle (SDLC)